

Application No. 10/693,730

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OCT 24 2006

Reply to Office Action

REMARKS

Reconsideration of the pending application is respectfully requested in view of the foregoing amendments and the following remarks.

Summary of the Application

Claims 1-43 are currently pending, with claims 2, 15 and 16 being amended and claims 17-43 being new. As all of the amendments and newly added claims are fully supported by the application as filed, no new matter has been introduced into the application by way of these amendments.

Summary of the Office Action

The final Office Action dated July 24, 2006, opens by rejecting claims 1, 2 and 14 under 35 U.S.C. § 102(b) as anticipated by U.S. Patent 5,163,999 ("Uchida"). Uchida is alleged to disclose each limitation of the claimed process, including the "at least one moiety" limitation; Uchida is said to disclose the "at least pH-indicating" property and the "conductive" property, the latter via the disclosure of alkali metal hydroxides. *See Uchida, col. 10, lines 17-20 & 33-35.*

Claims 3 and 5-9 are rejected under 35 U.S.C. § 103(a) as obvious over Uchida in view of U.S. Published Patent Application 2002/0077450 ("Kirchmeyer"). The Office Action alleges that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Uchida to have the solution taught by Kirchmeyer, in order to utilize components that dissolve quickly in solvents.

Claims 4, 11 and 13 are rejected under 35 U.S.C. § 103(a) as obvious over Uchida in view of U.S. Patent 6,632,472 ("Louwet"). The Office Action concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Uchida to have the solution as taught by Louwet "in order to reduce the amount of energy required to dissolve the ingredients as taught by Louwet."

Claim 10 is rejected under 35 U.S.C. § 103(a) as obvious over Uchida in view of Kirchmeyer and further in view of U.S. Patent 6,827,435 ("Domoto"). The Office Action alleges that it would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Uchida to have the heating of the receiving medium as taught by Domoto in order to prevent the printed images from smearing.

Claim 12 is rejected under 35 U.S.C. § 103(a) as obvious over Uchida in view of Louwet and further in view of Domoto. The Office Action alleges Uchida in view of Louwet

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teach the claimed invention, with the exception of heating the receiving medium within 10 minutes after printing to a temperature of $\leq 150^{\circ}\text{C}$. The Office Action further alleges that it would have been obvious to one of ordinary skill in the art at the time of the invention to additionally modify Uchida to have the heating of the receiving medium as taught by Domoto in order to prevent the printed images from smearing.

Claims 15 and 16 are rejected under 35 U.S.C. § 103(a) as obvious over Uchida in view of U.S. Patent 5,658,713 ("Van Hunsel"). The Office Action alleges that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Uchida to have the transparent dampening solution as taught by Van Hunsel in order to easily determine which areas of the plate are covered with ink.

Discussion

Applicants respectfully request reconsideration of the pending application in view of the foregoing amendments and the following remarks.

The Office Action rejects claims 1-16 over Uchida, arguing that Uchida discloses, *inter alia*, a moiety having pH-indicating properties or, alternatively, conductive properties. With regard to the former, Applicants respectfully submit that the Office Action misconstrues the referenced passage in Uchida. The term "pH" is disclosed in Uchida in connection with describing a property of the dampening solution, e.g., "said dampening solution having a pH ranging from 3 to 6." *See Uchida, claim 12.* Column 8, lines 3-14, of Uchida disclose that "the viscosity of the dampening solutions containing these thickening ingredients is affected by pH, addition of salts," At column 10, lines 32-36, Uchida discloses the addition of certain compounds that are able to provide the dampening solution with a pH that is within a desired range—" [t]he dampening solution composition of the present invention can have a pH of 7 to 11 by incorporating an alkali metal hydroxide, an alkali metal salt of phosphoric acid, an alkali metal salt of carbonate or a silicate therein." The disclosure of Uchida is clear—it discloses and teaches the use of certain compounds in its dampening solution in order to provide the solution with the desired pH.

In marked contrast, the claims require a moiety having pH-indicating properties; this is distinct from the pH-adjusting components disclosed by Uchida. In support, Applicants note that one of the needs addressed by the claimed subject matter is for a mass-production process for producing, *inter alia*, functional patterns such as pH-indicator patterns. *See, e.g., page 5 of the application as filed.* Illustrative of these pH-indicators are phenolphthalein,

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methyl red and methyl orange. *See page 16 of the application as filed.* Thus, claim 1 (and those dependent thereon), are not anticipated by Uchida, because Uchida does not disclose the use of a moiety having pH-indicating properties. Applicants note that claims 17-43 do not require a moiety with pH-indicating properties.

The Office Action further contends that Uchida discloses a moiety having conductive properties—pointing to its disclosure of alkali metal hydroxides. In marked contrast, claim 1 and those claims dependent thereon (claims 2-14) are distinguishable over Uchida because the former require a moiety having organic conductive or organo-metallic conductive properties; these are distinct from alkali metal hydroxides. Applicants note that claim 17 and those dependent thereon (claims 18-30), as well as claims 31-43, also do not require a moiety having conductive properties at all, and are distinguishable over Uchida on this basis alone.

For the foregoing reasons, Applicants submit that a clear distinction exists between the aforesaid claims and Uchida. It is respectfully requested that the rejection based on Uchida relative to claims 1-16 be withdrawn.

Claims 3 and 5-9 are rejected over Uchida in view of Kirchmeyer. Applicants submit that this rejection fails from the start because Uchida does not disclose (or teach) the presence of a moiety having a pH-indicating property. Indeed, Uchida, being silent in this regard, provides no motivation to one skilled in the art to include a compound having the claimed function in its dampening solution.

Moreover, the purported combination with Kirchmeyer fails to provide the teaching absent in Uchida. Kirchmeyer relates to a process for the preparation of polythiophenes that are soluble or dispersible in anhydrous or low-water-content solvents. However, Kirchmeyer provides no suggestion to incorporate such compounds into the dampening solution of Uchida; and Uchida does not include any suggestion to include a moiety with functional properties (e.g., in the manner of the claimed invention). The asserted combination, thus, lacks adequate foundation.

For at least the foregoing reasons, the obviousness rejection based on the alleged combination fails to render claims 3 and 5-9 obvious. Applicants further note that claims 17-43 also are distinguishable for these same reasons.

Claims 4, 11 and 13 are rejected as obvious over Uchida in view of Louwet. As discussed previously, Uchida fails to motivate one skilled in the art to introduce the claimed functional moiety into its composition—Uchida is silent concerning the need for such

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compound in its dampening solution. Absent such suggestion, it is improper to maintain the obviousness rejection based on the combination of Uchida and Louwet. That mere fact that Louwet discloses polythiophenes without more fails to provide any motivation to one skilled in the art to incorporate such polythiophenes into the Uchida dampening solution, let alone the very specific compounds recited in the dependent claim (e.g., claim 4). As there is no motivation (absent hindsight) for making the asserted combination, Applicants respectfully request withdrawal of the rejection of claims 4, 11 and 13.

Claim 10 is rejected as obvious over Uchida and Kirchmeyer, in further view of Domoto. At the outset, Applicants submit that because the combination of Uchida and Kirchmeyer is improper (see above), the rejection of claim 10 should be withdrawn on this basis alone. Further, however, the problem facing Domoto is entirely different than that facing the present inventors, and thus Domoto provides no relevant teaching. More specifically, Domoto describes a dryer assembly for drying a liquid ink image formed on a substrate, and thus fails to provide the teaching absent in the alleged combination of Uchida and Kirchmeyer.

For at least these reasons, Applicants respectfully submit that the rejection of claim 10 should be withdrawn.

Claim 12 is rejected as obvious over Uchida and Louwet, in further view of Domoto. At the outset, Applicants submit that because the combination of Uchida and Louwet is improper (see above), the rejection of claim 12 should be withdrawn on this basis alone. Further, however, the problem facing Domoto is entirely different than that facing the present inventors, and thus Domoto provides no relevant teaching. More specifically, Domoto describes a dryer assembly for drying a liquid ink image formed on a substrate, and thus fails to provide the teaching absent in the alleged combination of Uchida and Louwet.

For at least these reasons, Applicants respectfully submit that the rejection of claim 12 should be withdrawn.

Claims 15 and 16 are rejected as obvious over Uchida in view of Van Hunsel. Van Hunsel is alleged to teach a fountain medium containing a dye and/or pigment. However, this alleged teaching fails to overcome the deficiencies of Uchida (as previously noted). For at least this reason, Applicants respectfully submit that the rejection of claims 15 and 16 should be withdrawn.

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Finally, claims 17-30 describe, *inter alia*, a process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with a fountain comprising a fountain medium comprising between 50% by weight and 100% by weight of water, said fountain further comprising as a solution or a dispersion in said fountain medium at least one moiety having at least whitening, fluorescent, phosphorescent, X-ray phosphor, organic conductive or organo-metallic conductive properties. In addition, claims 31-43 describe, *inter alia*, a process for the offset printing of a receiving medium with a functional pattern comprising in any order the steps of: applying a printing ink to a printing plate and wetting said printing plate with a fountain comprising a fountain medium which comprises water, said fountain further comprising as a solution or a dispersion in said fountain medium at least one moiety which is an intrinsically conductive polymer.

None of the cited prior art, alone or in the asserted combinations, anticipate or render obvious the invention described in new claims 17-43.

Conclusion

As Applicants believe the application is in proper condition for allowance, the examiner is respectfully requested to pass the application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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